DOCUMENT RESUME

ED 219 165 PS 012 990

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TITLE Industry and Child Care: Economic Implications.
PUB DATE 79
NOTE 121p.; Filmed from best available copy.
AVAILABLE FROM Monmouth College, Center for New Jersey Business and Economic Research, West Long Branch, NJ 07764 ($5.00).

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Cost Effectiveness; Cost Estimates; *Day Care Centers; Delivery Systems; Early Childhood Education; *Employer Supported Day Care; Fringe Benefits; *Government Role; *Industry; Tables (Data); Taxes
IDENTIFIERS *New Jersey; Tax Exemptions

ABSTRACT

With the present and projected influx of parents with young children into the labor force, the need for quality day care services in New Jersey has increased. In response to this need industry has shown an interest in the provision of day care services for employees where such a service can be shown to be of benefit. This paper explores the general characteristics of existing or recently discontinued industry-sponsored day care centers. The first two sections of the paper contain a summary and outline of the study; the third section provides a survey of present industrial involvement in child care and types of involvement, alternative models of delivery, center organization, and industries most likely to provide day care services. An outline of the advantages and disadvantages with regard to child care for both the company and the day care center completes this section. The fourth and fifth sections examine the costs/benefits to firms in the provision of day care services and provide a demographic description of the need in New Jersey for child care services. Finally, the sixth section discusses ways the federal government can facilitate the involvement of the private sector in the provision of child care services. (MP)

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INDUSTRY AND CHILD CARE: ECONOMIC IMPLICATIONS

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Spring 1979

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SUMMARY

Employer subsidized child care has proven to be a benefit both to industry and to the working parent. The third section of this paper provides a survey of characteristics of on-site day care centers currently or recently in operation. What is of interest is the wide range of characteristics found in the substantially different programs which cropped up during the 1960's. Numerous organizational forms for industry sponsored child care grew out of this period ranging from simple informational assistance to the direct provision of services. Those centers which have persisted tend to be consortium centers which accept children from several industries and/or the community-at-large.

Definite advantages to the company in providing day care services exist ranging from creating a happier work environment to using the center as a means of attracting and retaining young, stable family oriented employees. Similarly, there are a host of advantages to the day care center in being located on or near the work-site. Aside from the obvious financial benefit, these assets range from using the company clout to improve on city services to using the expertise of the company for business, money and legal advice and services. Government can act as a facilitator for industrial involvement in a number of ways from education campaigns to legislation designed to provide tangible incentives to businesses.

Section IV concludes that it can be in the financial

interest of the firm to provide up to 95% of the costs of providing day care depending on the particular requirements of a firm. It was found that an extension of this analysis to a social base would probably show an increased benefit to the firm to provide child care. Moreover, a complete social benefit/cost study is quite likely to show total social benefits exceeding total social costs.

A demographic description of the need in New Jersey for child care services in section V indicates that there are nearly a half-million present or potential workers who could benefit from having a quality child care program available to their children. This need is further broken down into categories based on economic criterion. These categories range from those 120,000 parents with a crucial need for day care services in order to participate fully in the labor force to those parents for whom such a service would be desireable. This section further describes the forms of child care currently being used in the state. Many of these child care arrangements fall far short of providing a developmentally sound environment for the children of working parents; and as such can ultimately cost society more than providing a quality child care program.

In studying industrial day care experiments initiated during the last fifteen years, certain conditions under which such a service would be most successful have become clearer:

1. Subsidy for a center should come from a variety of sources instead of one firm assuming the total financial responsibility.

2. The higher the salary level of participating employees the greater the benefit to the firm in providing the service.
3. Centers are most beneficial in tight labor conditions where a company wants to attract and retain a particular type of employee to a particular location.
4. Past experience has reflected the association of child care with the female worker with high female/male ratios as being an ingredient for continued use. For example, industries with large numbers of clerical employees would find a center beneficial. However, changing social patterns of parenting may make such a condition obsolete.
5. A center would be most beneficial to companies with above average absenteeism and turnover costs.
6. A company can more generously subsidize a center where the product is sold in the consumer market; thus, using free and public goodwill advertising to help off-set the center's costs.

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SURVEY OF PRESENT
INDUSTRIAL INVOLVEMENT
IN CHILD CARE

Introduction and general summary of characteristics

With the present and projected influx of parents with young children into the labor force, the need for quality day care services in New Jersey has increased. In response to this need, industry has shown an interest in the provision of day care services for its employees where such a service can be shown to be a benefit.Table 1 provides a summary of the general characteristics of existing or recently discontinued day care centers involving industrial participation. (see Table 1).

The characteristics of the centers vary considerably. Details of various centers are given in Table 2. Ages of children served range from three months to six years, but usually are from two to six. The capacity of the centers ranges from 40 to 1000 slots and is usually near 60. Most centers are underutilized with utilization rates ranging from 50% to 100% and averaging 85% (diminishing utilization is frequently a major factor in their discontinuance at a particular location). Most centers operate ten hours a day five days a week, but the Kaiser shipyards during World War II operated 24 hours a day. Staffing ratios vary considerably from 1:4 to 1:14, but generally fall about 1 staff person per 10 children. Estimated costs vary considerably by region. Operating costs vary from a low of $18,000 to a high of $270,000,

but generally cost about $100,000. Costs in the south are often less than half of those in the northeast. All centers reviewed were subsidized to some extent by the employers. This subsidy ranged from 20% to 80%, but ususally was near 40%. Most companies paid the difference between fees and operating costs and generally paid most or all initial costs. Consequently, fees paid by the employees were usually $8 to $15 per child. More than half of the centers admitted children of non-employees, frequently including children from families on public assistance. Generally fees were higher for nonemployees, but these were often subsidized by public assistance funds. Industries with on-site day care facilities tended to have high female/male ratios of employees, generally 60% or higher.

TABLE 1

GENERAL CHARACTERISTICS OF "TYPICAL" CHILD CARE CENTERS

Age of Children	2-6
Capacity	60
Utilization	85%
Schedule	10 Hours 5 Days
Staff/Child Ratio	1/10
Cost	$35 per child per week
Fees (employed)	$8-15
Subsidy	40%
Employee/non-Employee Ratio	50%
Sex ratio of [illegible]	60%

Types of industrial involvement

Industry's involvement in the provision of day care services for employees has taken a number of different forms ranging from outright provision of free service to the simple provision of information about the availability of such service. The various types of participation may be summarized as follows:

1. Direct establishment and operation of the center on the premises with financial subsidy, supplies and services.
2. Helping to establish centers through direct capital outlay, construction, expertise and community involvement.
3. As a catalyst in the community by providing executive talent and expertise.
4. Through the donation of equipment, space and finances.
5. Providing vouchers to employees for their own purchase of child care services.
6. Joint contracting with employees at centers by reserving slots and sharing fees with employees.
7. Providing informational assistance to employees.
8. Subcontracting with a proprietary child care service.

TABLE 1

Companies Operating On-site Day Care Centers[1]

Company location product	Open or closed (date)	Number of women employees	Eligibles	Ages of children	Capacity and number enrolled	Days and hours of operation	Staff/child ratio	Fees	Estimated operating costs	Company Subsidizes
*PCA Corp. Mathews, NC color portraits	Open 1971	960 out of 1200	Employees	birth to age 6	244/180	5 days; 2 shifts 7 a.m.-12:30 a.m.	Infant 1:4 5 yr.old 1:14	$23-1st child $19-2nd $16.50-3rd	$270,000	All initial costs; difference between fees and operating costs--about 50%.
Stride-Rite Corp. Roxbury, MA children's shoes	Open 1971	737	Employees, community, public assistance mothers	9 mos.-6 years.	45/full	5 days; 7-5	1:5	10% of salaries; $47.50/week for public assistance mothers	$90,700 (1975)	with government grants, entire initial costs; difference between fees and operating costs. Supplies, utilities, maintenance. about $21,800.
*Conn. General Life Ins-Aetna Life Ins. Bloomfield, Conn.	Open	55% of about 2500	Employees Nonemployees	6mos.-7 years; after school program.	70/70; 53 slots to Co.	5 days; 7:30-5	Infants 1:4 Age 3 and up 1:10	Co. gets 10% reduction in fees of $47-$57/wk.	N.A.	Subcontracts to Living and Learning Schools and leases them land. Group purchasing power for fee reduction.

[1]Figures are for the most recently available year between 1968 and 1978; therefore, not comparable. Asterisk (*) indicates companies for which data for 1978 are given.

Companies Operating On-site Day Care Centers[1]

Company location product	Open or closed (date)	Number of women employees	Eligibles	Ages of children	Capacity and number enrolled	Days and hours of operation	Staff/child ratio	Fees	Estimated operating costs	Company Subsidizes
Amalgamated Clothing and Textile Workers Union (ACTWU) Baltimore, Md.	Open 1968	80%	Employees Nonemployees	2-6	1000	5 days, 8 hours	N.A.	$15-1st $7.50-2nd $30-non-employees	$1,200,000	initial costs; difference between fees and operating costs. Health & Welfare fund
ACTWU Chicago, Ill.	Open 1970	80%	Employees	3-5	75/50	5 days; 6-5	1:6	$5	$100,000	all union fund.
Allendale Mutual Johnston, RI	Open 1978	N.A.	Employees Nonemployees	6 mos.-8 years. after school	100/90	5 days; 7:30-5:30	1:4- Under 3; 1:10 over 3	10% reduction of fees $42-$52	N.A.	Subcontracts to Living and Learning Center. Leases land
Hoffman-LaRoche, Inc. Nutley, NJ. Pharmaceuticals	Open 1977	N.A.	75% Employees; 25% Nonemployees	2 1/2-6	43	5 days; 7-6	1:7	$42-Employees; $45-Non-employees	$150,000	difference between fees and operating costs. Maintenance and rent. About $26,000.
*YCO Economic Systems, Corp. Printing Div. Dorchester, MA.	Closed N.A.	30/115	Employees; Nonemployees; 1/5 public Assistance	3mos.-6yrs	65/46	5 days 7:30-6	1:8	$15-1st $15-2nd $10-3rd	$40-$50/wk per child	entire initial cost; 44% of operating costs; utilities, space, custodial services.

[1]Figures are for the most recently available year between 1968 and 1978; therefore, not comparable. Asterisk (*) indicates companies for which data for 1978 are given.

TABLE 2

Companies Operating On-site Day Care Centers[1]

Company location product	Open or closed (date)	Number of women employees	Eligibles	Ages of children	Capacity and number enrolled	Days and hours of operation	Staff/ child ratio	Fees	Estimated operating costs	Company Subsidizes
Curlee Clothing Co. Mayfield, KY	Closed 1975	560/625	Employees	2-6 years	45/40-45	5 days; 7:30-5:30	1:11	no fees	$18,000	entire costs
Mr. Apparel, Inc. Highpoint, NC	Closed N.A.	460/500	Employees; if space, Nonemployees.	2-6	40/36	5 1/2 days; 7-4:30	1:8	$8/wk; $16/wk for nonemployees	N.A.	entire initial cost; 1/2 operating costs; general services
Skyland Textile Co. Morgantown, NC	Closed N.A.	750	Employees and their grandchildren; nonemployees	2-6	118/84	5 1/2 days; 6:30-5	1:8	$11.50 1st; $18 2nd; $24 3rd; $14 nonemployees	$55,000	entire initial cost; 35% operating costs; office and maintenance
Tyson Foods, Inc. Springdale, Ark. (poultry processing)	Closed N.A.	50%	Employees	2-6	45/23	5 days; 5:15-6:30	1:8	$12.50/ wk	$34,000	entire initial cost; 50% of operating costs. (about $17,000)

[1] Figures are for the most recently available year between 1960 and 1978; therefore, not comparable. Asterisk (*) indicates companies for which data for 1978 are given.

TABLE 2

Companies Operating On-site Day Care Centers[1]

Company location product	Open or closed (date)	Number of women employees	Eligibles	Ages of children	Capacity and number enrolled	Days and hours of operation	Staff/child ratio	Fees	Estimated operating costs	Company Subsidizes
Vanderbilt Shirt Factory Asheville, NC	Closed 1977	306/340	Employees; Employees of neighboring companies	2-6	55/41	5 days; 7:30-4:30	1:8	$13-1st; $22-2nd; $29-3rd; $5/wk. more for nonemployees	$43,000	entire initial cost; difference between fees and operating costs (about $16,000); general services.
Chesapeake & Potomac Telephone Co. Washington, DC	Closed	N.A.	N.A.	N.A.	100	N.A.	N.A.	N.A.	N.A.	N.A.
Jefferson Mills Williamston, SC	Closed	N.A.	Employees; Nonemployees.	N.A.	60	N.A.	N.A.	N.A.	N.A.	N.A.
Joshua Tree Manufacturing Co. Gardenia, CA	Closed	N.A.	N.A.	N.A.	50	N.A.	N.A.	N.A.	N.A.	N.A.
Security National Bank of Walnut Creek, CA	Closed	N.A.	Employees; Nonemployees	N.A.	50	N.A.	N.A.	N.A.	N.A.	N.A.

[1]Figures are for the most recently available year between 1968 and 1978; therefore, not comparable. Asterisk (*) indicates companies for which data for 1978 are given.

TABLE 2

Companies [illegible]ating On-site Day Care Centers[1]

Company location product	Open or closed (date)	Number of women employees	Eligibles	Ages of children	Capacity and number enrolled	Days and hours of operation	Staff/ child ratio	Fees	Estimated operating costs	Company Subsidizes
Ohio Bell; Western Electric Columbus, OH	Closed	N.A.	Employees	N.A.	N.A.	N.A.	N.A.	$15-1st; $10-2nd	N.A.	N.A.
CLH Corp. Dorchester, MA	Closed 1974	N.A.	Employees; Nonemployees	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

[1]Figures are for the most recently available year between 1968 and 1978; therefore, not comparable. Asterisk (*) indicates companies for which data for 1978 are given.

On-site centers

Two major categories of involvement are on-site and alternate models of delivery. Table 2 describes in an abbreviated form many of the on-site centers opened during the last 15 years. Most of the company run centers started in the late 1960's have closed. The trend since then has been away from single company run centers to more consortium and community oriented centers in which the single company does not bear the major financial burden, but rather lends its expertise, purchasing power, and smaller proportions of financial support. Companies were attracted to providing day care services by the social mood of the 1960's for comprehensive child care and by the tight labor market conditions. Since Nixon's veto of the Mondale comprehensive child care bill and due to the mounting costs in providing day care, many on-site centers have closed. They became economically unfeasible for the single employer.

Kaiser Shipbuilding

On-site delivery systems include the hugely successful Kaiser shipyard experiment during World War II in which care was provided free of charge on a 24 hour basis for women employees at two Portland, Oregon plants. The centers expenses were added to the cost of building ships which were under government contract on a cost-plus basis. Up to 1,000 children a day were cared for in this fashion. In a final report in 1945, the center was credited with influencing the stability of the female workforce and increased productivity.

Stride-Rite Corporation

The Stride-Rite Corporation center is an outstanding example of high quality company-sponsored day care service for employees and the surrounding community. Serving 45 children ranging in ages from nine months to six years, it operates a 5 day a week, 10 hours a day, 52 weeks a year program. The cost to the center per child is $54 per week. The major factor in this cost is the staff/child ratio which is 1:6. Personnel costs are reduced by cooperating with intern and teacher training programs at local colleges. Other operating costs, such as supplies, utilities, maintenance, repair and accounting assistance are limited by the company providing them free. Stride-Rite employees pay 10% of their gross weekly salaries for each child enrolled. The on-site location in a disadvantaged area of Roxbury, MA. qualifies

the center for federal aid. The Massachusett's Department of Public Welfare fills approximately half of the available slots and pays $47.75 per week for each. A balance of $43,000 a year before taxes (or $21,000 after taxes) is donated by the Stride-Rite Charitable Foundation. Half of the employees using the center are office workers. The center is an advantage to the company in attracting and retaining clerical employees as they would probably not choose to work in such a location as Roxbury.

Amalgamated Clothing and Textile Workers Union (ACTWU)

The most extensive on-site child care program involving union members has been administered through the Health and Welfare Fund of the Baltimore Regional Joint Board of the ACTWU. The 1969 amendment to the Labor-Management Relations Act of 1947 permitted employer contributions to trust funds for the establishment of child care for dependents of employees. As a consequence of this amendment and collective bargaining agreements, the 70 manufacturers employing union members contribute 2% of their gross payrolls to the fund. About 80% of the total fund is reserved for day care for children ages 2-6 in six centers.

The cost of care is $60 per week with employees paying $15 for one child and half again as much for two. In recent years, non-employees have been permitted to use the center at a rate of $30 per week per child. 85% of the Amalgamated's members are female. Most have easily transferable skills.

The manufacturers have improved their competitive position in the labor market by providing day care as an extra benefit.

Connecticut General Life Insurance, Aetna Life Insurance, and Allendale Mutual Insurance Company

Several large insurance companies are subcontracting with proprietary child care services. Connecticut General and Aetna in Connecticut and Allendale Mutual in Rhode Island have contracted with the Living and Learning Schools. Two of the schools rent space directly from the companies and provide the service. The companies get a 10% reduction in fees to their employees through group purchasing of slots. All centers are available to non-employees. Fees run from $42 per week for the older children to $52 per week for the younger ones. Ages range from 6 months to seven years.

Alternate Models of Delivery

The Consortium; Northside Child Development Center

A good example of a consortium is the Northside Child Development Center established in 1971 in Minneapolis, Minnesota by the Control Data Corporation, Pillsbury, Dayton's, two utilities, two banks, and an insurance company. Although the center was recently reorganized, with all financing being assumed by federal Title XX funds, it has retained its diversified board of directors composed of business, parent, and staff representatives. Initially, the companies involved subsidized one-quarter of the operating budget and reserved a certain number of day care slots for their respective employees; with the reorganization, they now simply refer employees to the center. In 1971, the center provided comprehensive care for 120 infants, preschoolers and elementary students at a cost of about $50 per week per child.

A scientific/empirical test of the benefits to the employers of providing day care services at the Northside Child Development Center was reported in 1976 by Milkovich and Gomez of the University of Minnesota.[1] They found that the firm benefitted from having day care facilities available to its employees; however, the gain did not equal the full cost of providing the service. The impact of the center on the industries involved showed:

1. Absenteeism was reduced 21% from pre-enrollment rates.
2. Monthly turnover rates for mothers using the center was 1.8% as compared to 6.3% for mothers not using

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[1] Academy of Management Journal (March, 1976): 111-115.

the center or 5.5% for employees without children of of child care age.

3. Employers believed that day care services increased the productivity of the affected employees.

Community Catalysts; Whirlpool Corporation, Pepsico,Incorporated, Levi Strauss, Incorporated

As an alternative to establishing and/or operating their own centers, companies have assumed leadership roles in local communities to help them establish day care centers. Whirlpool Corp. organized 25 industries in the Benton-Harbor St Joseph's area of Michigan to form a Committee on Day Care and contributed the expertise of several of its departments. The result was the formation of the Twin Cities Area Child-Care Centers, Inc., a non-profit agency which administers a day care program. Pepsico, Inc. donated $25,000 to the Day Care Council of Westchester County, N.Y. to help expand existing centers.

Levi Strauss has also acted as a catalyst in a number of communities where it has production plants. The failure of its on-site center in Star City, Arkansas has convinced this company that it should advocate a quality family day care system (licensed home care).

Vouchers; Polaroid Corporation, Ford Foundation

Another alternative has been the use of vouchers. The Ford Foundation in New York has their employees make their own child care arrangements but provide allowances ranging

between $5 to $15 a week depending upon a family's gross annual income. To encourage the use of licensed day care centers with educational programs, the Foundation provides an additional $5 incentive.

In a slightly different arrangement, Polaroid Corporation in Cambridge, Mass. actually contracts with local centers for slots for their employee's children. Parents pay on a sliding scale based on total family income and the company subsidizes the rest.

"In-kind" assistance; Illinois Bell Telephone Company

Some companies have recognized the importance of day care for their employees, but have been unwilling or unable to assist financially. However, as in the case of the Illinois Bell Telephone Co., they have contributed "in-kind" assistance instead. For example, three personnel representatives for Illinois Bell assist employees in making arrangements for their children. The company also encourages local citizens to train and to apply for state foster day care licenses in order to service the company's employee's needs. Other groups of businesses have used their lobbying expertise to help secure day care programs in their state.

Center Organization: Liability and Control

Of the organizational options that exist, the consortium provides the most services to employees with the least risk to the individual employer. On-site company owned centers are the most risky while the other forms of involvement--voucher, community catalyst, and "in-kind" services--provide far less of a service to employees (See the preceding discussion of industrial involvement). An employer who joins a consortium which uses a purchase-of-service agreement with a local provider assumes the least financial and administrative liability while maintaining effective financial, policy, and program control.

Purchase-of-service contracts:

When a corporation wants to provide day care to the children of its employees, it can hire an independent day care service. This service will assume all financial and administrative responsibility for the center. Often the center will rent land and/or buildings from a company. A reduction in fees often accompanies a firm's donation of space and a guarantee to utilize a set number of day care spaces. If the center is to include children from the community, a company can also gain public recognition for being community-minded. Although program and policy control lie outside the firm, the positive aspects of organizing day care in such a fashion are:

1. Risks of under-enrollment, mismanagement, and inefficiency lie with the proprietary service not with the employer. However, under-enrollment could lead to the closing of the center and loss of services to the company.
2. The employer only pays for actual care delivered on a per/enrollee basis.

3. Initial capital investment is reduced or eliminated altogether unless volunteered as a way of reducing fees.
4. The company has the option of subsidizing all, none, or part of parent fees.

Consortiums and Purchase-of-Service Contracts

When a group of employers, or employers and community representatives form a consortium which hires a proprietary service, risks are further reduced while control factors are enhanced. In addition to the factors cited as benefits in straight purchase-of-service format, the following benefits accrue to consortiums:

1. Foremost, the critical number of employees from a single company needed to support a corporate program is reduced by sharing the quota among several employers or with the community-at-large.
2. Flexibility is increased by allowing individual companies to contract for a specific number of slots for a period of 6 months to a year at which time the contract can be altered to fit demand.
3. Each company can regulate its costs by a) purchasing only desired type of care, and by b) developing a suitable parent fee schedule.
4. If developed on a large scale, consortiums can excercise effective financial, policy, and program control over the independent day care providers. The larger the number of representatives from the business community to a board of directors as well as the economic advantage businesses have if they hold a majority of the spaces in a center allows a consortium to defacto control a center.

Employer-Owned Centers

Employer-owned centers allow a company the most control over finances, program and policy than any other structure. However, the employer assumes much more liability for the success of the center. Usually an employer has two major options in organizing such a center:

1. as a non-profit charitable corporation which is legally autonomous but which can be controlled though donations and appointments to the board of directors; and
2. as a for-profit subsidiary or division of the employer's company.

The nature and tax treatment of costs are treated below in the section on tax objectives.

Vouchers

When a company chooses to use a voucher system, it minimizes its financial and administrative involvement, but it also poses specific problems to its employees. Through the use of vouchers, an employer

1. only pays for day care which is actually delivered,
2. terminates his obligation immediately if the employee quits, is fired, or becomes ineligible,
3. and makes no capital investment.

One of the problems facing parents with vouchers is locating adequate space for their children in a center. With day care space at a premium, waiting lists can span years. Parents at Polaroid Corporation face such a problem in the Boston area. Therefore, voucher systems do nothing to increase the amount of available day care space.

In-Kind Services

When a company chooses not to subsidize a center or parent fees directly, it can still make some financial and administrative contribution to the day care of its employees children by offering "in-kind" services. A company can assume

1. the personnel and overhead costs to maintain a staff which locates and develops day care arrangements;
2. the training expenses to prepare untrained persons to operate a family day care home thereby increasing employment and income to community residents;
3. and, the capital investment or loans to homes for renovation into day care facilities.

Industries most likely to provide day care services

Industries most likely to provide day care services are those with a high preponderance of female employees. According to a study by Donald Ogilvie for Inner City Fund,[1] employers with a potential interest in a successful day care center program should have the following three characteristics to justify an employer-subsidized center:

1. A large female labor force located in one geographical area; probably about 1,000 women employees are necessary to justify a center of 100 slots.
2. A sustained need for additional female employees in order to utilize the recruiting value of day care.
3. Above average absenteeism and turnover costs.

Of the industry-sponsored day care centers surveyed, most were located at companies who manufactured textile products. Others were located at food processing and electronics centers. The health care industry has pioneered in the provision of day care services with about 100 on-site centers currently active.

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[1] Employer-Subsidized Child Care. Washington, D.C. (May, 1973): 139.

Since the A.T.T. affirmative action case, utilities such as Western Electric and Ohio Bell in Columbus, Mo. and the Chesapeake and Potomac Bell in Washington, D.C. have experimented with day care services although both these installations are not longer involved. Banks such as Security National in Walnut Creek, CA have also shown a fleeting interest in day care.

Table 3 shows employment of women in New Jersey by industry. A vast majority of women, 78.8% are employed in "non-manufacturing" jobs. Table 4 shows the distribution of employed women according to occupation with 43% employed in a clerical capacity. Industries with large numbers of jobs which fall into these categories may choose to consider the benefits of providing day care services to their employees.

TABLE 3

EMPLOYMENT OF WOMEN 14 YEARS OF AGE AND OLDER
BY KEY INDUSTRIES* IN NEW JERSEY (1978)

Industry	1978	Percent
Total	1,221,900	100
Manufacturing	258,500	21.2
Durable Goods	103,900	8.5
Stone-clay-glass	10,400	.9
Fabricated Metal	13,300	1.1
Machinery, excluding electrical	14,300	1.2
Electrical Machinery	35,700	2.8
Other	30,200	2.5
Non-Durable Goods	154,600	12.7
Food	13,600	1.1
Apparel	43,800	3.6
Printing & Publishing	20,000	1.8
Chemicals	40,500	3.3
Rubber & Plastics	12,300	1.0
Other	22,400	1.9
Non-Manufacturing	963,400	78.8
Transportation & Communication	44,300	3.6
Trade	282,300	23.2
Wholesale	55,200	4.5
Retail	227,100	18.7
Finance, Insurance, Real Estate	73,200	6.0
ervice	462,600	37.9
Medical	138,700	11.4
Educational	159,000	13.0
Other	164,000	13.5
Government	89,400	7.2
Federal	14,800	1.2
State & Local	74,600	6.0
Other	11,600	.9

*Only those industries which employ over 10,000 women are included.

Source: Numbers from New Jersey Department of Labor and Industry.

TABLE 4

DISTRIBUTION OF WOMEN WAGE EARNERS 14 YEARS OF AGE AND OLDER
(NEW JERSEY, 1978)

OCCUPATIONAL GROUP	PERCENT	NUMBER
Clerical	43	526,500
Operatives	12	150,300
Professional & Technical	17	202,800
Service Workers	14	174,700
Sales	8	92,900
Managers & Administrators	3	34,200
Other	3	40,500
TOTAL	100	1,221,900

Source: Numbers from New Jersey Department of Labor and Industry.

Conclusion

Although industry has shown an interest in establishing day care services for their employees, large scale experimentation with industrial involvement in day care has not yet taken hold in the United States. What is of interest is the variety of approaches used, their relative success, and the advantages to the company and to the child care centers of providing such services. To date the industrial consortium, or the industrial-community consortium, have been the most stable providers of industrial child-care.

Advantages to companies to provide child care services have been:

1. The centers attract and retain young, stable, family oriented employees.
2. Companies are in a stronger competitive position in employment.
3. Companies create a good community and national image.
4. Companies make savings in absenteeism, turnover, and productivity.
5. Employees are happier when their children are adequately cared for.
6. Parents who work contribute, rather than take from, our taxes.

(For a benefit/cost analysis see section II of this report.)

Advantages to child-care centers other than financial assistance of company involvement has been:

1. Legal advice and services
2. Business and money management advice and services
3. Use of existing group feeding facilities
4. Use of existing medical facilities
5. Telephone and office service and supplies
6. Recycling of surplus manufacturing material
7. Advantage of large scale purchasing power of goods and services
8. Use of existing maintenance department
9. Service of company's repair shop and personnel
10. Use of transportation equipment
11. Use of diverse management skills
12. Company clout when needed to impact on city services

Government could establish policies to encourage industry's involvementrin providing day care. Some ways government can act as a facilitator to service providers are:

1. IRS could promise better tax incentives
2. Provide incentives to build and operate centers much like those incentives to modernize, hire the under-employed, and expand to create new jobs
3. Single out and honor companies providing such services
4. Technical assistance to companies
5. Facilitate coordination among all the many agencies

that need to be involved in child care.

7. Engage in education campaign stressing the needs of young children.
8. Adopt long-range view that intervention at an early age is cheaper in the long run. (i.e. $21,000 cost for one year in jail; $3,500 for one year in day care).

BENEFIT/COSTS TO FIRM
IN THE PROVISION
OF DAY CARE SERVICES

Introduction

The total savings in turnover, absenteeism, and productivity at three salary levels are compared to fixed operating costs to determine the percentage of costs the firm might expect to save by providing child care for its employees. This percentage is the benefit/cost ratio and is 34%, 57%, and 95% for full costs at various salary levels. A firm can profitably provide between 34 and 95 percent of the full costs of providing day care to its employees, with the most probable figure being near 60%. If only operating costs are considered, these percentages are even higher: 40, 112, and 70, respectively. Table 1 presents a summary of this information (See Table 1).

If a firm makes free day care available to a "typical" employee having 1.25 children using such a service, it will save direct expenses due to turnover, absenteeism, and lost production amounting to $21.40, $35.40, or $59.40 per week. The amount of savings will depend upon the salary level of the "typical" employee using the service. These figures show that if only operating expenses are considered, it can actually be profitable for a firm having a high average salary level to provide such services since it saves one dollar and twelve cents for every dollar it costs for day care.

TABLE 1

BENEFIT/COST RATIOS OF EMPLOYER PROVIDED CHILD CARE CENTERS

	Typical Salary Level of User		
	$8,000	$11,000	$16,000
Gains & Losses			
Turnover	$16.60	$28.60	$49.80
Absenteeism	2.40	3.40	4.80
Productivity	2.40	3.40	4.80
Total Saving	21.40	35.40	59.40
Day Care Center			
Full Cost	$62.50	$62.50	$62.50
Operating Cost	53.00	53.00	53.00
Benefit/Cost Ratio			
Full Cost	.34	.57	.95
Operating Cost	.40	.67	1.12

Theoretical advantages to the firm

The major savings indicated in Table 1 are reduced costs due to reduced rates of turnover. The level of savings is quite sensitive to the salary levels of the affected employees. Studies suggest that the cost of replacing a lost employee goes up more than proportionately as the salary level of the employee goes up. For example, at a salary level of $8,000 replacement costs are $1600, or 20% of the salary; whereas, at a salary of $16,000 replacement costs are $4,800, or 30% of the salary level.

The table does not include other benefits to the firm which are not easily quantifiable, but which, nevertheless, result in increased profits. One of the most important of these benefits is the public goodwill, or advertising effect, of being known as a firm which provides this kind of service to its employees. For a firm such as Stride-Rite which manufactures and retails children's shoes, the free "brand-name" advertising can be most beneficial.

Two other important benefits which are not easy to quantify are in the use of a day care program to attract local labor and in the goodwill such a center may create among a firm's employees. The first of these benefits reduces replacement costs and required wage levels directly. For example, where salaries are low and the distance to nearby towns with additional labor is great, a center may be the most economical way to get increased help. This effect varies in importance with the state of the economy;

in tight labor markets turnover rates are higher.[1] The second has a positive effect on productivity, thus reducing production costs. These benefits all reduce the level of "average" salary required for such a program to become cost-effective, i.e. profitable.

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[1] Table 1A in the appendix shows that the turnover rate varies from 1.1 at the relatively high unemployment rate of 5.5% in 1959 to 2.7 with the low unemployment rate of 3.8% in 1966.

Variants to benefit/cost ratio

One other aspect of Table 1 should be commented upon. The figures given are for only those employees affected by the day care program. The question arises as to cost-effectiveness as their proportion of the total employment varies among firms, or within a particular firm. The answer is that but for three possible exceptions, there is no change in cost-effectiveness, as the benefit/cost ratio does not vary. This is because, as the proportion varies, both the costs and benefits vary in the same ratio.

One exception lies in the possibility that a firm will not have enough employees to "fill" the child care center, i.e. to operate it at its efficient level. In this case as the proportion of employees requiring day care services falls, the cost per child of providing it becomes prohibitive. Imagine, for example, the cost per child of providing quality care for one child. Below a certain minimum number, it would be necessary to pool with other firms or with the community in order to be solvent.

Another exception would be if a firm could somehow discriminate against hiring employees with small children. In this case, the firm would have the savings in turnover, absenteeism, and increased productivity without the child care expenditure. There is some question however, as to whether or not an employee without small children would be more stable than a worker with small children. Studies suggest that a worker who is free of home responsibilities

might have turnover and absentee rates equivalent to or perhaps greater than those with small children, but without day care services.

The size of the day care facility provided also impacts upon the benefit/cost ratio. If one large center is built which would service the equivalent of two smaller centers then capital outlays would be reduced as well as operational savings accrued from bulk purchasing and reduced numbers of specialized staff, i.e. nutritionists, nurses, maintenance persons, etc..

Actual advantages to firms who have provided day care services

The advantages to a firm in providing day care services can also be ascertained by studying what firms actually paid for such a benefit and the circumstances under which such an investment was cost-effective. Table 2 presents the level of advantage to actual firms of providing day care services to their employees. (see Table 2). These firms paid between 22% and 85% of the total costs, or between 26% and 100% of the operating costs. Since the companies found it originally profitable to provide services at these levels, the financial advantage to the firms cited can be inferred from these figures.

However, it is noteworthy that at the present time only two--Stride-Rite and PCA-- of the cited firms are still in operation, subsidizing the total cost at a level of about 40%. The inference can be made that while it may have been cost-effective to provide subsidized care in the late 1960's and early 1970's, it may not be as cost-effective in 1978. A major factor between the two periods that may account for this change is the tight labor market conditions in the first period as compared to generally high unemployment conditions in the latter. Of significance also is the stricter regulation of day care centers and their higher cost.

TABLE 2

ACTUAL EXPERIENCE COSTS AND SUBSIDIES BY FIRMS
of
CHILD CARE SERVICES FOR EMPLOYEES

	Costs[1]			Benefit/Cost Ratio	
	Full[2]	Operating	Subsidy[1]	Full	Operating
AVCO	32	27	12	.37	.44
Mr. Apparel	18	16	8	.43	.50
Curlee	9	8	8	.85	1.00
PCA	35	30	15	.43	.50
Skyland	15	13	4	.30	.35
Stride Rite	45	38	11	.24	.29
Tyson	33	28	14	.42	.50
Vanderbilt	24	20	8	.33	.40

[1]in dollars per child.

[2]Assuming operating costs are 85% of full costs in cases where actual operating costs are not given.

Sensitivity of Child Care Costs

The costs in providing day care services to employees are extremely variable with no easily defineable standards for measuring quantity and quality. Does a child receive more goods and services per 8 hour day in a developmental center which charges him more than a child in a custodial center which costs him less? Estimates on the costs of child care vary over a wide range per child per year. In a preliminary study published by Abt Associates in 1978, the monthly cost per child ranged from $80 per month to $310 per month with the average monthly cost falling about $160. Two thirds of this average monthly cost ($107) was spent on personnel; 14% ($22 per child) on occupancy; and 19% ($32 per child) on supplies, equipment and other operating costs.[1]

TABLE A

Costs of Child Care in Percentages

Personnel	66%
Occupancy	14%
Supplies, equipment, & other operating costs	19%

Cost Sensitive Factors: Wages, Size

Wages and Cost:

Nearly three-quarters of the variation in cost between centers are wage related and determined by three factors:

1. The ratio of caregivers to children,
2. The ratio of non-caregivers to children,
3. And the center wage rates.

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[1] Cambridge, MA. p. 17.

Studies show that the caregiver/child ratio has the greatest impact on cost per child than any other single factor. Inner City Fund found that a reduction in the teacher/pupil ratio from 1:7 to 1:4 would increase the cost per child by 30%. The cost per child is also highly sensitive to the quality of the professional staff. A heavy reliance on certified teachers rather than less educated para-professionals can easily double the cost per child. A 1971 Westinghouse-Westat survey of proprietary centers showed that hourly teacher salaries in custodial centers averaged $.85 an hour and at developmental centers the average was $2.72 an hour.

Purpose

It is not meaningful to discuss the wage costs of day care without specifying the purpose and location of the program. A quality program by definition is one which is developmental in nature and which meets the Federal Interagency Day Care Requirements (FIDCR). A custodial center need not meet FIDCR requirements but it would not receive Federal funds as a result. (See section on qualifying for tax-exempt status).

Variations in the cost of quality care result from the composition of the staff and support services which are wage related. Program scope which may include more or less educational, nutritional, medical, social, and other developmental attributes affects cost per child most significantly through the staff/child ratio. A quality program, developmental in nature, is likely to have more non-caregivers to children than a custodial center. A developmental center is also likely to provide more extended services to the child and his family such as transportation, social workers, specialized

classroom personnel and health programs. The mix of accredited teachers to paraprofessionals and the numbers and training of non-caregiving personnel account for most cost differences between quality centers.

The more a center depends on federal funding, the higher its costs are likely to be. Most of the differences between federally funded and parent-fee centers is a result of higher FIDCR and wages and larger percentages of non-caregivers associated with the relatively broad range of supplementary services. (See appendix for a discussion on FIDCR).

Location

The location of a center affects the costs at a center due to the regional differences in salary levels. The present level of wages in Alaska is double what they are in Mississippi. Moreover, the higher level of inflation in Alaska will cause wages to increase more rapidly there than in Mississippi.

The cost for quality caregivers not only varies according to geographical location but also the same quality caregiver may command a higher salary in an urban setting than in a suburban one. In order to attract teachers to a center in an urban setting that teacher may require a higher wage incentive.

The differences in construction cost of facilities in different areas is not a significant factor in the annual cost per child. A 50% increase in the construction per square foot would increase the annual cost per child less than 3%.[1]

Size and Cost

Controversy exists as to whether the size of a center affects the cost per child or not. Inner City

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[1] Ogilivie, D. Inner City Fund. p.43.

Fund claims that there would be a 7-10% reduction in cost if enrollment was increased from 60 to 100 children. Abt Associates on the other hand claim that group size would not affect the cost per child if the ratio and quality of caregivers were held constant. It is probable that cost per child would be reduced by enlarging the group size even if the caregiver/child ratio were held constant: capital costs including land purchase, building, and equiping classrooms would be less per child; economies of scale would apply to supplies and non-caregiving staff including administrative and support service personnel; and certain fixed costs such as land taxes would be spread accross a greater number of children. However, group size would not be a highly sensitive factor in of itself.

Significant economies do exist in the rate of utilization of capacity in a center. Inefficient utilization can increase costs appreciably. The annual cost per child can be reduced 10-15% by increasing the enrollment rate from 80% to 95%.[1] Absenteeism studies can help a center determine the average annual utilization level as well as seasonal fluctuations in attendance. If a center has a fairly constant absenteeism level of about 10% then they can increase enrollment by 10% in order to maximize the savings (through over-subscription) even if enrollment is at 100%.

Similarly, most studies indicate that during the summer months utilization rates drop significantly. Increasing enrollment during that season could decrease the annual cost per child. Alternate programs to include school-age children is one means to make up the slack.

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[1] Inner City Fund, p. 43.

Relatively Insensitive Cost Factors: Food, Supplies, Construction Costs

The following three factors considered important to quality child care appear rather insensitive. First, an increase in food costs has very little impact on the annual cost per child. Inner City Fund claims that even a 50% increase in the cost of food will cause only a 3-4% increase in the cost per child.[1] A typical center budget allots only 5-7% of its total costs to food. This amount can be partially defrayed by grants given by the Department of Agriculture.

Second, the cost of program materials is equally only a small percentage of the total (typically less than 6%). This cost is often further reduced by the participating firms donating supplies to the center. The Stride-Rite center for example expends only $900 a year on supplies, or less than 1% of their budget. The Stride-Rite Corporation also reduces costs by providing utilities, maintenance, and repair services.

And third, the annual cost per child is not adversly affected by an increase in the construction cost of facilities. As mentioned earlier, even a 50% increase in the construction cost per square foot would only increase the annual cost per child by less than 3%.

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[1] P. 43.

Tax Objectives

The tax objectives of a firm which is considering subsidizing a day care service for its employees are:

1. The full and immediate deduction of payments for capital and/or operating costs.
2. No tax payments by the entity providing the care.
3. Minimum administrative burden on it arising from tax laws.
4. And no income taxation of the employee's income of the value of the services received by their children.

All contributions to a day care center are income tax deductable either as business expenses or as contributions to charitable or educational foundations depending upon the tax status of the receiving center. The center may be classified as tax-exempt or taxable (non-exempt). An employer wishing to provide day care services to its employees may choose either the exempt or non-exempt vehicle depending upon which is most advantageous. Employer sponsored day care facilities which meet certain standards are eligible for exemption from Federal income taxes by virtue of Section 501 (c) (3) of the Internal Revenue Code.

The advantages to subsidizing and/or creating a tax-exempt center are:

1. The total and immediate write-off of all capital costs involved in establishing the center.
2. All donations to the center are deductable as charitable contributions up to 5% of a company's taxable income.
3. Payments which primarily serve an employer's business interests need not be deducted as charitable contributions but can be deducted as general business expenses which are not limited by the 5% ceiling.
4. Less administrative burden arising from tax laws.
5. Employees will not be taxed for value of services.

The advantages in creating a non-exempt center are:

1. Complete flexibility with regard to location, eligibility, fees, structure, and enrollment.
2. Five year straight line depreciation of all capital costs.
3. All contributions are deductalbe as general business expenses.

A tax exempt status is most encompassing of the tax objectives of a firm considering subsidizing a center. If a company can qualify, then it should consider such a status. However, if a firm contributes more than 5% of its taxable income to a charitable foundation providing

day care then the firm should consider using a non-exempt center for which all contributions would be deductable as business expenses and not subject to the 5% ceiling, or deducting all capital costs as a charitable contribution and then deducting other subsidies as business expenses, where such subsidies can prove to benefit the private interests of the employer through reduced absenteeism and turnover, increased productivity, and the ability to attract personnel.

Non-exempt Status: "An Ordinary and Necessary Business Expense."

If a non-exempt center is set up as part of a corporation or is contracted with separately to primarily serve a corporate entity's private business interests, then contributions to such a center would be deductable as general business expenses and not as charitable contributions. Subsidies to a non-exempt center can be deducted as a business expense whether or not the center is run on a profit or non-profit basis. Tax law allows for a five year straight line depreciation of child care facilities for a taxpayer's employees' children. Initial capital costs would be amortized and not deducted in full the year paid. If a corporation contracts with an existing center or supports the creation of new separate non-exempt centers, all direct payments for services and

operating costs would be deductable as business expenses. A center can avoid all income tax liabilities by operating on a break-even basis unless an employer chooses to use the center as a tax shelter.

Exempt Status: "Serving a Public Interest."

In order to qualify for a tax-exempt status, a center must comply with the Internal Revenue Service requirements. Exempt status can be achieved by either applying for non-profit charitable foundation status or for educational organization status. The main obstacle to compliance is the need to prove that contributions to a center are not "self-dealing," but serve a public rather than a private interest. Both forms must meet the public interest criterion.

Exempt status in both cases would not be possible if enrollment were limited to children of employees. Some measure of preference could be given to employees' children if the basic judgement were made on objective criteria. Typical objective criteria are the financial need of the family and the need of the child for care. One means to secure preference would be if the center could be adjacent to the company premises. However, caution should be excercised if a company wishes to avoid being accused of self-dealing.

One means to avoid the accusation of self-dealing would be if a center received at least 10% (exclusive of fees) of its funding from government or one third of all support from general contributions from sources other than the employer-sponsor. The public interest criterion can be further satisfied by a sponsor providing a developmental program rather than a custodial program for its employees' children. Providing a developmental program would strengthen the case for exemption for a center with a de facto employment preference.

A center clearly sponsored by an employer which provides only custodial care primarily benefits the employer and the mother who is thus enabled to work. In these circumstances, a public interest (that of the child) is not being advanced and an exempt status would be less likely than if a developmental program existed. The argument to provide a developmental program exists no matter which exempt status a center applies for. It is self-evident that an educational organization would have to fulfill certain program requirements. The public interest criterion could be further advanced if the members of the governing board of a center were primarily from outside the company.

Deductions of contributions to charitable foundations providing day care to a company's employees can not exceed 5% of that firm's taxable income. If a company consistantly contributes more than 5% of its income, it may choose to deduct such contributions as business expenses if he can

prove that he receives a private benefit from subsidizing an exempt center. In this fashion he could avoid the 5% ceiling and yet he could still deduct all capital endowments in the first year.

Tax Treatment of the Value of Services

It is in the employer's and the employees' interest to sent the company's children to a tax-exempt center. It makes no direct financial difference to the employer if he deducts his contributions to a center as charitable deductions or as business expenses. However, it does make some administrative differences in that an employer could avoid withholding income form participating employees by not treating subsidies as increased income to those employees.

The employee clearly benefits when employer provided day care is not treated as taxable income to the employee. This situation is assured when employer contributions are treated as charitable donations; and when the employer contributions are treated as a business expense incurred to benefit the private interest of the firm. In these cases, services to an employee's child are not considered wages and the employee avoids paying income taxes on the value of the service. If an employee must pay for day care services, the IRS now provides a 20% credit towards the cost up to a maximum of $2000 for the first child and $4000 for two or more children. The cost of day care must not exceed earned income.

Discussion

The estimates of Table 1 and the evidence of experience in Table 2 indicate that while it is not profitable for a firm to pay the full cost of day care for its employees, it is in the financial interest of many firms to encourage the provision of such care and to subsidize its cost. The extent of subsidy depends to a large extent on the level of difficulty the firm has in acquiring and retaining quality employees and on the nature of the market for its product. In the first case, the greater the difficulty the greater the level of subsidy. Economic conditions affecting labor markets, the location of the firm vis a vis its potential labor supply, and the number of individuals in society at large having the skills required by the firm determine the magnitude of difficulty for an employer.

In the second case, the level of subsidy will be greater where the product is sold in a consumer market. Stride-Rite manufactures and sells shoes to children by its brand name. The generous free advertising associated with the firm's support for child care centers saves the company some of its expenditure required for brand name development as well as targets the advertising to those consumers most influenced by such advertising: parents of children ages 0-13. Clearly, the choice as to the level of support is highly individualized for the firm and the profitability of such a choice is specific to a particular time and loca-

tion. In general, however, it seems that there are few firms that would not find the presence of such a service beneficial, and which would not find it profitable to subsidize some part of their employees' cost of participation.

ADDENDUM

Social Perspective

The benefit/cost study presented in this report has been confined to an analysis from the viewpoint of the firm. This viewpoint presents the weakest case in favor of the establishment of child care centers at or near work sites. The range of analysis could be broadened to include benefits and costs to the employees affected, all non-participants, governmental budgetary units, and society as a whole. In so doing, it is quite likely that the benefit/cost ratio would be increasingly greater and that from the total social viewpoint it would be greater than one. That is, from the social viewpoint there would be a gain of more than one dollar for every dollar invested in providing day care services.

Examples of benefit/cost studies which use a broad range of analysis are presented in the following two tables. (see Tables 3 and 4). The first study is a series of evaluations of a support program for ex-offenders published by Mathematica in Princeton, NJ. The program provided employment services and/or an income subsidy during a period of transition between incarceration and full participation in society.[1]

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[1] It may be of interest to note that the income subsidy part of the LIFE program was found to be cost-effective, but the employment service part was not.

In this study, Mathematica found that the benefit/cost ratio was 3.76 from both the participant and non-participant viewpoints, 2.70 from a budgetary perspective, and significantly nearly 54 from the social viewpoint. The major reason for this large increase is that when considering the problem from anything less than the total social viewpoint, both distributional effects and efficiency effects become involved, whereas from the social perspective only efficiency considerations are necessary. The principal issue becomes whether or not the investment in the LIFE program is economically efficient; specifically, does society have more goods and services at its disposal after the initiation of the program than before, or would society be better off it the resources devoted to the LIFE program were used for other purposes?

Table 4 presents the results of another study just completed by Mathematica on the Job Corps program. In this case the perspectives were: society, nonparticipants, and participants. Benefit/cost ratios of just over one were found in all three cases. Two things are of interest in this table, beyond the same considerations found on the previous table. First, from the equity point-of-view, it is interesting to note the explicit handling of the "transfers," or redistributions of income among members of society (in this case between Corpsmembers and Non-corpsmembers) which balance out to zero from the social (efficiency) viewpoint. For

example, the $106.63 item for increased tax payments on post-program earnings is shown as a gain for nonparticipants and a loss for participants. Second, it is interesting to note the handling of non-quantifiable elements. The element "preferences for work over welfare" is shown as a gain of unspecified magnitude regardless of perspective.

TABLE 3

Benefit/Cost Comparisons of LIFE Program

A. SOCIAL BENEFIT/COST COMPARISONS

Benefits		Costs	
Averted Costs of Theft		Administration of LIFE	$16,200
Criminal Justice System	$ 70,251		
Theft Related Losses	170,007		
Increased Output	604,791		
Fewer Resources in Welfare	25,382		
TOTAL	$870,431		$16,200
Ratio of Benefits to Costs =	53.731		

B. BUDGETARY BENEFIT/COST COMPARISONS

Benefits		Costs	
Averted Costs of Theft		Administration of LIFE	$ 16,200
Criminal Justice System	$ 70,251		
Fewer Expenditures on Welfare	301,747	Transfer Payments with LIFE	168,480
Increased Tax Revenues	120,958		
AL	$492,956	TOTAL	$184,680
Ratio of Benefits to Costs =	2.669		

C. NONPARTICIPANT BENEFIT/COST COMPARISONS

Benefits		Costs	
Averted Costs of Theft		Administration of LIFE	$ 16,200
Criminal Justice System	$ 70,251		
Value of Stolen Property	73,304	Transfer Payments with	
Theft Related Losses	170,007	LIFE	168,480
Fewer Expenditures on Welfare	301,747	Reduced Earnings (displacement)	0
Increased Tax Revenues	120,958		
TOTAL	$736,267	TOTAL	$184,680
Ratio of Benefits to Costs =	3.760		

TABLE 3 (cont'd)
Benefit/Cost Comparisons of LIFE Program

D. PARTICIPANT BENEFIT/COST COMPARISONS

Income Payments from LIFE	$168,480	Reduction in Welfare Benefits	$ 84,677
Increased Earnings	604,791	Increased Tax Payments	120,958
TOTAL	$773,271	TOTAL	$205,635

Ratio of Benefits to Costs = 3.760

Source: A comparative Evaluation of the Benefits and Costs from the LIFE Program, Mathematica, Princeton, New Jersey, 1978.

TABLE 4

Present value per corpsmember for Job Corps

	Social	Non-Corpsmember	Corpsmember
Benefits			
I. Output Produced by Corpsmember			
In-program output	$ 756.59	$ 670.60	$ 85.99
Increased out of program output	1,238.81	0	1,238.81
Increased tax payments on post-program earnings	0	106.63	-106.63
Preferences for work over welfare	+	+	+
II. Reduced Dependence on Transfer Programs			
Transfer payments	0	1,010.83	-1,010.83
Administrative costs	119.65	119.65	0
III. Reduced Criminal Activity			
Property damage and personal injury	273.90	273.90	0
Stolen property	387.43	967.94	-580.51
Justice system costs	1,895.74	1,895.74	0
Reduced psychological costs	+	+	+
IV. Reduced Drug/Alcohol Use			
Treatment costs	174.79	174.79	0
Psychological benefits	+	+	+
V. Utilization of Alternative Education and Training Services			
Education and training costs	390.57	390.57	0
Training allowances	0	72.71	-72.71
VI. Other Benefits			
Improved Corpsmember health status	+	+	+

TABLE 4 (cont'd)

Present value per corpsmember for Job Corps

	Social	Non-Corpsmember	Corpsmember
Costs			
I. Program Operating Costs			
Center operating expenditures other than for Corpsmember transfers	2,702.98	2,702.98	0
Transfers to Corpsmembers	0	1,198.26	1,198.26
Central administrative costs	1,358.77	1,358.77	0
II. Opportunity Cost of Corpsmember Labor			
Foregone earnings	878.58	0	878.58
Foregone tax payments	0	152.74	-152.74
III. Unbudgeted Expenditures other than for Corpsmember Labor			
Program costs	46.22	46.22	0
Transfers	0	185.36	-185.36
t Present Value	$ 250.93	$ 39.03	$ 211.90
Benefit-Cost Ratio	1.0504	1.0070	1.0800

Source: Technical Report D, A Comparative Evaluation of the Benefits and Costs of the Job Corps after 7 months of Post program Follow-up, Mathematica, Princeton, New Jersey, 1979.

Equity considerations

In abstracting the social benefits and costs in section A, Table 3, consideration was given to the equity effects of the LIFE program which are described in the last three sections of Table 3. Equity is an important consideration which does not rely on a strict efficiency standard, i.e. a program may be less efficient but more equitable than another program. Members of society may share disproportionately in benefits and costs which is termed the equity effect of a program. The equity effects are very important, not only for a complete analysis of the program, but as a guide as to a possible redistribution of benefits and/or costs. In the case of establishing day care services, the equity effects could be a guide as to the most equitable distribution of costs among employers, employees and society at large. The major perspectives to be considered should be that of the firm, participating and non-participating employees, non-participants, (governmental) budgetary, and society as a whole.

Benefit/cost ratio from a social perspective

The benefit/cost ratio from the social perspective would be higher than that for the firm. The major benefits to society are in terms of the child being cared for and the employee using the child care service. There are numerous children who would be included in the program for whom many of the same kinds of considerations included in the Job Corps study would be relevant. The prophalactic benefits listed under items II,III,and IV would be important for some of the children; whereas, most children would be subject to the considerations of items I,V, and VI.

Item I, "Output Produced by Corpsmember" (in the above case, child care recipient), would be most significant. Increased productivity of item I not only applies to the future social impact of the child, but also to the output of the parent. It should be noted in passing that this item was a major benefit in the Job Corps study and in the LIFE study as well. The major social gain in the case of the employee participant who increases his output as a result of the increased employment of his available skills, would be a decrease in the under-utilization of human resources. This gain would appear in three forms:

1. employment of those who by virtue of having to care for small children at home were previously prevented from employment;
2. increase in full-time employment of those for whom child care at home forced only part-time employment; and
3. participation in higher levels (by skill) of employment

of those for whom child care considerations were a limitation to advancement.

Benefits to the firm from a social perspective: TRANSFERS

The benefit included in Table 4, item 1, "increased tax payments on post-program earnings," may help reduce taxes paid by the firm. Given a fixed level of taxes at the governmental level and increased tax payments on an employee's earnings (due to increased productivity, hours worked, promotion, etc.), a transfer may occur which would benefit the firm by reducing the taxes paid by all taxpayers. This transfer would be most significant in cases where workers were previously unemployed and receiving governmental assistance and become employed by virtue of the opening of a day care center.

Conclusion

It is recommended that this study of day care centers be broadened to consider a variety of benefits and costs to determine both the efficiency and equity aspects.

ESTIMATED NEED FOR QUALITY DAY
CARE SERVICES IN NEW JERSEY

Introduction

In profiling the need for day care services in New Jersey, it was efficient to use U.S. Department of Labor Statistics figures. Unfortunately, the profile is drawn almost exclusively from statistics based on the female worker. This slant is due to the fact that the U.S. Labor Department statistics correlate female labor force participation, children, and family income much more readily than they do for the male worker. According to these statistics, men cite "home responsibilities" as a reason for staying out of the labor force less than .05%. Also, the category "single male head of household" was hardly significant statistically to include in this demography. Young children tend not to impact on male labor force participation nor on male salary levels nearly as much as they do on the participation and income of women. New census figures will reflect that for many working parents child-rearing is now a mutual concern. Where both parents work, on-site child care at either the place of the father's employment or the mother's employment will be equally beneficial to the dual-income household.

Preliminary research suggests that nearly a half-million mothers in New Jersey need child care services in order to fully participate in the labor force. (see Table 1). The cost to society to provide quality child care to their children according to federal standards would be $1.8 billion. This group includes those mothers who are employed with school-age (6-13) and preschool (0-6) children requiring supervision; those mothers who desire to work but are unemployed due to home responsibilities; and those mothers who would like to work but have become discouraged and ceased looking or work. Of this nearly half-million figure, it is estimated that nearly 120,000

mothers have a"crucial"need for child care since their personal income or, in the case of husband-wife family units, their family income places them within the Social Security Administration's standard for low income levels. To meet the need of this group alone would require in the order of $455 million. An additional 35,000 mothers are classified as having a"severe"need for child care services because they are the sole heads of their families. Meeting the need of this group would require an additional $128 million. The third group classified as "desireables" represents those women who do not suffer a crucial or severe need for such services but if given access to suitable day care services would find their life and that of their families substantially improved. It is estimated that an additional 300,000 mothers could be so classified. Meeting the needs of this group would cost another $1.2 billion.

TABLE 1

ESTIMATED NUMBERS OF WOMEN WHO REQUIRE DAY CARE SERVICES
BY NEED, AGES AND NUMBER OF CHILDREN[1] AND ESTIMATED COSTS[2] (1977)

Classification		Children's Age 0-6	Children's Age 6-13	Totals
CRUCIAL	Women	56	61	117
	Children	118	128	246
	Cost	$ 295	$160	$ 455
SEVERE	Women	14	21	35
	Children	29	44	73
	Cost	$ 73	$ 55	$ 128
DESIRE-ABLE	[illegible]	152	151	303
	[illegible]	319	317	636
	Cost	$ 798	$396	$1194
TOTALS	Women	222	233	455
	Children	466	489	955
	Cost	$1166	$611	$1777

[1] in thousands of individuals

[2] in millions of dollars

Estimated need and costs for present systems of day care

Further research indicates the way in which the children indicated on Table 1 are presently being provided for. Table 2 shows the type of care these children are receiving now and the dollar outlays involved in such care. (see Table 2). Nearly three-quarters of a million or 80% of the children are cared for in their own home; 75% of whom are cared for by a parent. The remainder of "in the home" care is provided by relatives, by non-relatives, and by the children for themselves.

In the after-school category, ages 6-13, there is a large numerical difference between those children who care for themselves and those who are enrolled in group day care centers, 65,000 and 5,000 respectively. Furthermore, it is estimated that there are altogether 66,000 "latch-key" children or twice as many as the 33,000 children who are enrolled in day care centers. Children who are left to fend for themselves are commonly referred to as "latch-key" children. Only eighteen percent of the children (0-13) are serviced in a home other than their own.

Outlays needed for our present system of day care amount to about $200 million which represents only 11% of the total of $1.8 billion estimated in Table 1. Of the $200 million, the state is covering only 20% of the cost of day care services from Title XX funds, or $38 million. Much of the disparity between the theoretical dollar projections and the actual dollar outlays lies in the assumption that there are no expenditures for child-

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care when the provider is a parent, relative, or the child for himself.

Table 2 reflects that the greatest outlays, 88% of the total currently being expended, are incurred in the care of pre-schoolers. Five times as many preschoolers are enrolled in day care centers as are school-age children. 40% of the total outlay for preschoolers goes to day care centers; whereas, only 24% of the total expended on school age children is spent at such centers, $70 million and $6 million respectively. Table 2 further shows that 30% of children (ages 0-6) are cared for in a home other than their own, but only 7% of school-age children (6-13) fall into the same catagory; 17% of preschoolers are under the paid care of a non-relative outside of the home, but only 4% of school-age children are under such paid supervision. Thus, it is obvious that the age differentials and length and type of care (home, other's home, day care center, etc.) have a great impact on the dollar outlay between the two age groups.

TABLE 2

NUMBER OF CHILDREN RECEIVING DAY CARE SERVICES[1]
AND THE ESTIMATED DOLLAR OUTLAY[2] BY TYPE OF DAY CARE (1977)

	OWN HOME					ANOTHER'S HOME					
	Parent	Relative	Non Relative	Self	Sub Total	Relative	Non Relative	Sub Total	Day Care	Other	T
Preschool 0-6	253	34	15	1	303	57	78	135	28	0	
$ outlay	0	0	$20	0	$20	0	$78	$78	$70	0	$
School Age 6-13	310	50	15	65	440	16	18	34	5	10	
$ outlay	0	0	10	0	$10	0	$9	$9	$6	0	
TOTAL 0-13	563	84	30	66	743	73	96	169	33	10	
$ outlay					$30			$87	$76		$

[1]in thousands of individuals

[2]in millions of dollars

Financial Ability and Willingness of Parents to Pay

Studies have shown that the cost of developmental day care programs (about $50 per week) exceeds the financial ability of the average working parent. The average family will not pay more than ten to fifteen percent of their annual income for day care. Without financial assistance parents will select informal day care arrangements that are relatively convenient and inexpensive (less than $10 per week). A Health, Education, and Welfare study done by the Children's Bureau in 1968 showed that 47% of preschool arrangements involved no cash payments. A 1971 Mathematica study done for the State of Vermont showed that among low income families, 70% had no child care costs.

Most parents desire day care near their residential neighborhood and are unlikely to utilize developmental care, even if provided free of charge, if the center is located more than a half-hour from their home. One study showed that a parent would rather pay $15 a week than travel more than 30 minutes to a center. In the general population, past experience has shown that parents prefer care in a private home to arrangements in day care centers. Most of these parents cite cost and location as reasons they would not use a center facility.

However, an interesting comparison exists between those parents who have never used a day care facility and those parents who have had some experience in using center care. According to a 1975 study by Abt Associates, parents who have chosen to use center care based on experiencial criterion cited the superiority of educational programs over other forms of care. Well-trained caregivers also ranked high as a reason for choosing center

care. Convenience, transit arrangements, and center hours were reasons cited for choosing a particular center over another. Few parents cited cost as a factor.

In contrast, the Vermont study showed that parents without experience with center care evenly divide over whether or not they would consider using a center. Half say they would use a center if it was convenient; half would not. Those parents who would not use a center even if available cite the following reasons in descending order: satisfied with current arrangements, prefer caring for own children, children would not like it, children ineligible, costs too much.

Geographical and racial distribution of estimated day care need

Geographical information strongly indicates that the need for day care services is not evenly distributed throughout the state by the presence of women in the prime child-rearing age groups, ages 25-39. (see Table 3). Essex and Bergen counties have many more women, 469,000 and 456,000 respectively, likely to have children requiring child care. The smallest populations of women of child-rearing age are in Warren (44,000), Hunterdon(39,000), and Salem (32,000) counties.

Within the non-white female population ages 25-39, Table 3 indicates a proportionately higher concentration in Essex county (about 39,000) than for all women in that age group. Also, non-whites show a significantly different geographic distribution with the preponderence being in Essex, Hudson (9,000), and Union (9,000) counties when compared to the total population. Counties with negligible non-white populations are Hunterdon, Sussex and Warren counties which comprise less than 5% each of the total population.

A comparison between the numbers of black women who require day care services (see Table 4) to all women in the population in Table 1 shows that the group with the most crucial need for child care are an estimated 16,000 young black mothers. There is a greater incidence of need

for black women with children in the age range of 0-6 than for the total population which shows its greatest need in the age range of 6-13. Nearly half of all black mothers (30,000) requiring child care services have a "crucial" need for such services, whereas only a quarter of women (117,000) in the total population have such a need. 64% of black women with children requiring child care have either a "crucial" or "severe" need for day care. This figure is twice the all women population where 33% have such a need. In addition to the 12,000 black women who have a "severe" need, another 24,000 black mothers would find such day care service desireable.

TABLE 3

NUMBER OF WOMEN LIKELY TO HAVE CHILDREN
REQUIRING CHILD CARE BY AGE, COUNTY AND RACE (1975)
(THOUSANDS)

	total population	total ages 25-39	percent of total	white total 25-39	percent of total	non-white total 25-39	percent of total
Counties							
Atlantic	100	17	17	14	14	3	3
Bergen	456	86	19	82	18	4	1
Burlington	172	38	22	33	19	5	3
Camden	248	48	19	41	17	7	3
Cape May	37	6	16	5	14	1	3
Cumberland	40	13	19	11	16	2	3
Essex	469	91	19	52	11	39	8
Gloucester	97	19	20	18	19	1	1
Hudson	304	57	19	48	16	9	3
Hunterdon	39	8	21	8	21	0*	0*
Mercer	164	33	20	25	15	8	5
Middlesex	298	62	21	58	19	4	1
Monmouth	255	52	20	46	18	6	2
Morris	201	45	22	43	21	2	1
Ocean	152	27	18	26	17	1	1
Passaic	237	47	20	39	16	8	3
Salem	32	6	19	5	16	1	3
Somerset	102	21	21	20	20	1	1
Sussex	50	11	22	11	22	0*	0*
Union	272	49	18	40	15	9	3
Warren	44	9	20	9	20	0*	0

*less than .5%

Source: Population Figures,
N.J. Department of Labor and Industry, Division of Planning and Research, Bureau of Economic Research (August 1978).

TABLE 4

NUMBER OF BLACK WOMEN WHO REQUIRE DAY CARE SERVICES
BY NEED AND AGES OF CHILDREN
(THOUSANDS)

Need	0-6	6-13	total
Crucial	16	14	30
Severe	5	6	11
Desireable	13	12	25
Total	34	32	66

Means of defining estimated need

The estimates provided in Table 1 have been derived from those of Table 5 which gives additional details about the labor force participation, marital and income status of mothers in the state who are working or who desire to work. (see Table 5). This information is disaggregated by the age of their children, Included are those women with children up to the age of 13. It is assumed that children under 6 require full-day care and children 6-13 require part-day care.

In arriving at the estimates of need given in Table 1, it was assumed that women with a "crucial" need would include:

1. women who have husbands present who earn less than $7,000 a year;
2. women who have no husband present and who earn less than $7,000;
3. and women who have no husband present and who are unemployed.

Women with a severe need for day care services are:

1. the sole heads of their families and earn more than $7,000 a year.

The remainder of women in Table 5 would find day care desireable.

The "crucial" catagory is reflected in Table 5 by the 70,000 women whose husbands earn less than $7,000; the 37,000 women who earn less than $7,000 and whose husbands are not present; plus the 10,000 women who are unemployed for a total of 117,000 women in Table 1 with such a need for child care.

Women with a severe need for child care total 35,000, with 14,000 having children 0-6 and 21,000 having children 6-13. The remainder of women (303,000):

263,000 whose husbands earn more than $7,000;

30,000 who wish to work but do not due to "home responsibilities; and

10,000 "discouraged" women

would find day care desireable.

TABLE 5

RELATIVE NEED OF MOTHERS FOR DAY CARE SERVICES
BY AGES OF CHILDREN, BY PRESENCE OF HUSBAND, BY LABOR FORCE STATUS,
AND BY ECONOMIC HARDSHIP (IN THOUSANDS) (1977)

	0-6			6-13			Total		
Total Women in NJ with children under 13	465			395			880		
In the Labor Force	195			220			415		
Husband Present		160			173			333	
Husband earns less than $7,000			35			35			70
Husband earns more than $7,000			125			138			263
Husband Not Present		35			47			82	
Mother employed			29			43			72
Earns less than [illegible]			15			22			37
Earns more than [illegible]			14			21			35
Mother Unemployed			6			4			10
Earns less than $4,000			3			2			5
Earns more than $4,000			3			2			5
Not in the Labor Force	290			175			465		
Wishes to work		20			10			30	
Discouraged		7			3			10	
Other		263			162			325	

Characteristics of estimated need

One of the groups in Table 5 which is of particular interest is the category labelled "Not in the Labor Force." Among the 365,000 women who are not in the labor force there are at least 40,000 women who desire to work. Many women wish to work but cite "home responsibilities" as their reason for not working. It is estimated that 30,000 of these women would work if day care was provided. About 10,000 more "discouraged workers"--individuals who have the desire to work, but because of various frustrations have become discouraged with their own job opportunity prospects and therefore have ceased looking for employment--are women with children in the age ranges categorized and are therefore included in the "desireable" category of Table 1.

Labor force participation is consistantly higher for mothers of the 6-13 age group than for the women with children ages 0-6. From this fact, it can be inferred that preschool children in the home inhibit the labor force participation of mothers. 40% of women with children 0-6 are in the labor force; 56% of women with children 6-13 are in the labor force.

The estimates for Table 4 which summarizes the child care needs of black mothers were derived from Table 6 which gives information about the labor force participation, marital and income stat-s of black mothers in the state. (see Table 6). Of significance is the fact that more black mothers with children ages 0-6 who have husbands present are in the labor force than black mothers of school-age children.

Young children appear to be less of an inhibiting factor in labor force participation of black mothers than for all women described in Table 5.

The cost of day care presented in Table 1 is based on federal guidelines for day care. To educate a child in a "quality" day care atmosphere which includes intellectual stimulation, medical and nutritional attention, good staff ratios, and parental involvement, administrators for Title XX funds in New Jersey estimate the cost per child at $50 a week for $2500 for a 50 week year. If the need for "quality" child care was met in the state, the overall cost would be $1.2 billion for just preschool care. If the after -school costs of caring for school age children according to Title XX's formul: of $25 per week per child or $1250 a year, an additional $611 million would be added for a total of $1.8 billion.

TABLE 6

RELATIVE NEED OF BLACK MOTHERS FOR DAY CARE SERVICES
BY AGES OF CHILDREN, BY PRESENCE OF HUSBAND, BY LABOR FORCE STATUS,
AND BY ECONOMIC HARDSHIP (1976) (THOUSANDS)

Total Women in NJ with children under 13	0-6	6-13	Total
	63	50	113
In the Labor Force	34	32	66
Husband Present	20	18	38
Husband earns less than $7,000	7	6	13
Husband earns more than $7,000	13	12	25
Husband Not Present	14	14	28
Mother employed	10	12	22
Earns less than $7,000	5	6	11
Earns more than $7,000	5	6	11
Mother Unemployed	4	2	6
Earns less than $4,000	2	1	3
Earns more than $4,000	2	1	3
Not in the Labor Force	29	18	47

Conclusion

Present systems of day care in New Jersey fall critically short of meeting the estimated need for quality day care services for the children of present and potential working parents. In considering meeting the needs of this segment of the labor force, it would be beneficial to compare the costs of not providing such care from a social perspective as discussed in the addendum to section II.

How government can facilitate the involvement of the private sector in the
the provision of child care services

The magnitude of the need for quality child care services in the State of New Jersey (and the $1.8 billion estimated to meet that need) can be reduced if Federal, State and Local government recognizes the potential that the private sector of our economy has to help. Whatever government can do to make it easier for firms to establish centers or to donate resources can potentially stimulate this involvement. The following suggestions cover a range of possible actions that the various levels of government might consider. Most of these suggestions fall into three general categories: the gathering and dissemination of information; the coordination, clarifying and streamlining licensing and monitoring procedures; and reducing costs to providers of child care services.

On the Federal level:

The Federal government historically has funded child care centers as a means to allieviate adult employment problems and as a support service to stimulate employment. Its initial involvement in child care was as part of the Works Project Administration in 1933 when funding was authorized as a supportive service for parents employed in the WPA. The Lanham Act of 1941 also was directed toward stimulating employment in response to the U.S. mobilization effort for World War II.

The 1962 amendments to the Social Security Act represents the Federal government's next venture into child care. These amendments were directed at both meeting the needs of the increasing numbers of working women and as a means to help break the cycle of poverty of

those people who were dependent on the Welfare System because they could not work or update their skills due to child care responsibilities. Child care was now both a way of stimulating and supporting employment and a means of reducing welfare costs.

It was not until Public Law 90-222, that a child-oriented approach to child care entered Federal policy. Aside from the clear mandate to establish child care centers as part of the "War on Poverty," the legislation also authorized the Federal Interagency Day Care Requirements (FIDCR). The FIDCR was charged with the development of standards and mechaniams for the coordination of child care programs. It was created to encourage the sound administration of Federally funded child care programs.

FIDCR was also created to develop a standard of developmentally sound care. In 1975, Title XX was added to the Social Security Act and for the first time in a Federal statute, compliance with the FIDCR was made an absolute condition for receipt of Federal aid by child care centers. Although the mechanisms between the Federal government and the states for the disbursement of funds have been worked out, a major snag has been in establishing sound standards that would not be prohibitively expensive for qualifying centers. To date those standards have not been clarified and heated debate centers on whether these standards should define minimum requirements necessary for a developmentally sound program of child care or whether the standards should establish a goal of what is deemed "best" care for preschool children in a group care setting.

At present, the Federal government could address itself to the issue of encouraging the establishment of child care centers in the following ways:

1. It could speed the process of review for the FIDCR. The Administration for Children, Youth, and Families, of the U.S. Department of Health,

Education, and Welfare has just published the results of a four year National Day Care Study which analyzes the benefits and costs of critical center day care characteristics for preschool children. This study recommends the following amendments to key provisions of current FIDCR:

A. Amend the group composition requirement by tightening the ceiling on the total number of children permitted in each group, while relaxing the minimum number of caregivers required per group.

B. Include a separate staff qualification requirement specifying that staff providing direct care for children must have child related education/training.

The study isolates group size and staff training as the key influences on the children's well-being in a child care center. The study estimates that the above changes will make a center less costly to run.

2. The Federal government in recognizing the possibilities of private sector involvement in providing services to their employees could encourage the development of standards which would be adaptable to different providers. For example, parental involvement is considered important in a good program. Yet many working parents find getting involved in their children's center care an impossibility. If parental involvement is a requirement for Federal in funding then such a standard acts as a deterrent to many working parents who do not have the time to be involved. Such a requirement would be a disincentive to companies to qualify for Federal funding in order to offset their costs in providing child care services to employees.

Alternatively, if parental involvement was established as a goal, but not as a requirement, then such a standard would not be a disincentive.

It seems likely that any move in this direction would end in FIDCR providing a "minimum" standard along with a "goal" standard. It has been estimated that the present minimum standard, which would correspond to the goal standard mentioned, results in a weekly cost per child of approximately $50 in New Jersey. Depending upon the extent of removal of the new "minimum" standard from the "goal" (old minimum) standard, the weekly cost per child could be reduced in the order of 20%. So doing would reduce the cost of providing quality child care in New Jersey to all who need it from the estimated $1.8 billion to approximately $1.4 billion.

3. Once FIDCR standards are made which are realistic, explicit, and enforceable, then the Federal government can review its monitoring, licensing, and enforcement procedures which to date have not been uniformly implemented. A licensing guideline and plan to encourage the uniform application of standards could be made as a model for the states which, in turn, could develop their own licensing plan. A clear licensing and monitoring mechanism would benefit all providers. The Federal government could also supply training funds through TITLE XX to individuals hired by the Federal and State levels of government as licensors.

If Federal funds were used to provide both financial and technical support for the development and implementation of State certification standards, then it is estimated that the total cost of the Federal monitoring process would be about $500,000 a year per state.[1]

$50,000	direct cost of developing certification standards, including meetings, hearings, and staff time.
$200,000	indirect and hidden costs of developing certification standards.
$50,000	training expenses
$200,000	average incremental cost of monitoring

4. The cost implications of new FIDCR should carefully be made so that the States can be assured sufficient funds to comply. The original impact of the FIDCR on the states was to cause the closure of many centers and to discourage the opening of new ones because of the costs involved, especially those resulting from the staff: child ratio. As a result, a moritorium was placed on the FIDCR and State codes prevailed in qualifying centers for Title XX funds. This mistake should not be repeated.

5. Continued liberalization of the Internal Revenue Code would help stimulate the use and demand for child care centers. To date tax credits are only applicable to families with up to two children. Credits could be extended to parents with more than two children. Also, tax credits are distributed disproportionately to those with higher income levels in that the greatest benefit falls to those parents who can afford to spend the ceiling of $2,000 per child up to $4,000 maximum. Families who do not pay taxes receive no benefit. Such a tax structure does not encourage the use of child care centers over less expensive informal modes of care among middle to low income groups. IRS could provide specific incentives

[1] Rowe, R.R. "Alternatives to FIDCR: The Feasibility of State Standards For Certification of Federally Supported Day Care." in Policy Issues in Day Care: Summaries of 21 Papers. HEW, Office of Planning and Evaluation, Washington, D.C. (1977): 46.

to encourage the use of licensed child care centers as opposed to the informal modes of care. For example, it could incorporate into its procedures a fixed dollar grant to parents who use such centers. Or, as another example, it could provide a special allowance for child care costs incurred when a parent is preparing to enter or re-enter the labor force by updating his/her skills and education.

The IRS already has liberal tax incentives for businesses to provide child care services. Similar incentives could encourage developers and landlords of multi-family dwellings to build tenant-run centers by allowing them to deduct the costs involved wither as a business expense or as a charitable contribution.

6. The Department of Health, Education and Welfare could maintain an up-to-date clearinghouse of information on child care. To date, relatively little emphasis has been placed on the school-age child of working parents. HEW could address itself to the issue of after-school care by gathering information on alternative market modes.

7. Along with the Department of Labor, HEW could also further encourage the development of child care jobs for public service employment. In Massachusetts, the New Career program uses federal funds to pay for 80% of the salaries of a number of teachers at the Stride-Rite Childcare center.While the participants gain on the job experience, they also attend classes in early childhood education. Such a program of wage subsidy significantly reduces the costs of operating the Stride-Rite center.

On the State level:

The State's part in encouraging the establishment of child care facilities by the private business sector could include that of facilitator, coordinator, and catalyst. Below are listed a number of possible services the State could perform without much cost to encourage industrial child care:

1. The State could gather and make available all information relating to "industrial child care."

2. The State could provide technical assistance to companies including an explanation of licensing requirements and procedures.

3. The State could make known all possible financial services and tax incentives available to providers of child care centers.

4. The State could run education campaigns on the need for child care centers and the benefits to private industry in helping to meet that need. Companies could be singled out and honored for providing such services.

5. The State could create licensing standards which would be more flexible than the FIDCR certification standards required to qualify for Federal funds. For example, the State could allow a certain percent of the child:staff ratios required by FIDCR to be filled by volunteers and interns in order to reduce the relatively high cost of

personnel. Michigan allows one third of the required staff to be volunteer. The $50 cost per child per week in New Jersey would then be reduced by 20% or $10 if a similar substitution was permissable.

6. The State's licensing procedure could be simplified and streamlined. At present large delays are possible between inspections by local and state entities charged with seeing that fire, sanitation and health codes are being complied with, and that licensing standards are being met. The possibility exists that if the licensing bureau of the Division of Youth and Family Services was charged with developing a standardized statewide fire, sanitation and health code for child care centers, then the same inspectors who check to see if a center satisfies the State child care requirements could also inspect a center to see if it passes all the building codes. Such centralization would make the process of licensing a center more efficient.

7. The State could develop a fee-scale for child care which would extend eligibility for public assistance to more families. Eligibility for Title XX funds in New Jersey for child care services is currently calculated according to a family's earnings. Income eligibility for New Jersey is as follows:

Low income family of 4	$8,000 or less
Moderate income (family of 4)	$14,500 or less
Single parent with 2 children	$12,000 or less

Present policy stipulates that public subsidy for child care should not be extended to persons who earn above 80% of the median income level of the State at the expense of the low income population. (The median New Jersey income is about $20,000).

Such a system creates what is called a "notch problem." It

discourages a worker from earning more than the qualifying income if that worker can not afford to lose the benefit of the child care subsidy. Parents' earnings could be used only as a basis for fees to be paid, and not as a basis for eligibility. A graduated fee-scale is more likely to guarantee economic work incentives.

When a family that has qualified for public assistance no longer qualifies, a system of gradual removal from subsidization over a period of six months to a year could diminish the economic shock to a family of having to assume all the child care costs by itself. Such a gradual removal from assistance is less likely to discourage a worker from taking a higher paying job than if he/she was faced with the immediate and full cost of providing child care

8. State monies could be used to reduce the start-up costs involved in child care centers. The State could finance 1/2 the capital costs of establishing such centers while the private sector finances the second half. Several states including Kansas, Oklahoma, Colorado, and California have seed money grants available to non-profit organizations to establish and run child care centers. Private industry is eligible for these grants. If the State of New Jersey were to finance the capital costs involved in starting a center on a one-half matching basis, the cost to the State per child would be about $260 a year over the period that the capital structures were to be amortized.

9. In order to further reduce capital costs, we can make use of existing public buildings for child care centers. As the population in the public schools decreases, public school space for preschool and after-school care becomes more available. State and local government can help facilitate such a transition. The private sector could then

provide vouchers to their employees to use at the public schools.

10. The State could also develop special State tax breaks for industries which sponsor child care programs for their employees. Tax incentives could be modeled after the Federal IRS code.

11. The State could encourage collective-bargaining agreements between labor and management to include child care services for its members. Employer donations to special union trust funds could be State income tax deductible as is currently the case with the IRS.

On the county or regional level:

Counties can help coordinate child care services, provide consummer information and encourage the training of early childcare personnel.

1. Counties can help reduce the costs of operating child care centers by coordinating various services to the centers. For example, the State of Florida has created child care coordinating councils which act as umbrella organizations. These councils buy child care slots for Title XX recipients in the State as well as for private companies. This modified voucher system eliminates the need for public centers. The 4-C's, as these councils are called, help reduce the costs of individual centers by consolidating special services. Health personnel, nutritionists, social workers, and teacher training experts are all employed by the umbrella organization rather than by each individual center. Yet, the centers can still qualify for Federal funds by having these resources available to

them.

The way in which the Florida Title XX match is organized also encourages private sector involvement. The typical 75% Federal to 25% State match is further broken down to 75% Federal, 12 1/2% State, and 12 1/2% regional match. Local business either directly or indirectly through the United Way are encouraged to help meet their locality's needs as a community service.

The 4-C's administrative and program costs are covered by a 10% override over the cost of the subcontracted space if the funding source is from the private sector and a 12% override if the funding source is the State.

At present, the State of New Jersey has a 4-C system which does not function as an umbrella agency as the Florida system does. They are not a service agency for the State or for private sponsors. They do not locate children in child care slots. Rather, they provide consumer information and coordinate special services to the centers themselves such as technical assistance, training information, management assistance, assistance with nutrition plans, etc.. The New Jersey 4-C's have been funded until Dec. 31, 1979, at which time they will either be discontinued or refunded.

2. CETA prime sponsorships could include the training of child care personnel in their education and manpower training programs. Child care centers within a particular prime sponsorship area could benefit by having the salaries of participants paid for by CETA thereby reducing their personnel costs.

3. Counties can act as clearinghouses of information to local consumers of child care.

Benefits/costs to firm in the provision of day care services:

The major assumptions used in obtaining the results presented in Table 1 are:

1. For employees using employer subsidized day care services on or near the work site:
   a. Turnover will be reduced by 4.5% per month.
   b. Absenteeism will be reduced by 1.6% per month.
   c. Number of children entered for care will average 1.25 per employee.
   d. The typical salary level will be $8,000, $11,000 or $16,000.
2. The cost of replacement plus the cost of separation in- in the turnover of such an employee will be 20%, 25%, or 30% of the annual salary for the three levels given.
3. The cost of absenteeism will be equal to the wages paid for time absent and that all absences are fully compensated.
4. The cost of reduced productivity without child care is equal to the cost of absenteeism caused by lack of child care facilities.
5. The full cost per child of providing child care will be $50 per week.
6. The operating cost of providing child care is 85% of full cost.

The main evidence for assumptions 1a and 1b is found in a study of the Northside Child Development Center of Minneapolis (c.a. 1971) published in the Academy of Management Journal (March 1976). This study compared turnover and absenteeism rates for mothers with children in the day care center, mothers with children of similar ages not enrolled in the center, and other employees without children or without children of day-care age. The results showed a statistically significant reduction in both turnover and absenteeism for the first group as compared to the other two. (It is interesting to note that the difference between the latter two groups was not significant--lending support to the thesis that discrimination by the firm against employees with young children may be counter productive.) The calculations resulting in Table 1 used the differences found in this study. While it has not been possible to find any other study to corroborate these changes of turnover and absenteeism rates, the levels found in the study are in the range of rates found in other studies. The Northside study also attempted to measure improved productivity, but failed to do so. The failure was more in the nature of data available than in the question of presence or absence of improvement. For calculations leading to Table 1, it was assumed that the increase in productivity would be in addition to and equal to the improvement in absenteeism. This assumption is probably a conservative one.

The number of children per user and $11,000 income level are based on information about the on-site center of PCA. The $8,000 and $16,000 simply bracket the $11,000 figure and provide reasonable upper and lower levels. By comparison, it

is noted that the average annual compensation in manufacturing in New Jersey in 1978 was approximately $13,500.

Evidence on the cost of replacing employees was used to convert turnover rates to financial benefits to the company. There are a number of studies determining these costs. In general it is found that the cost of replacement increases considerably as the level of salary or the level of skill of the employee increases. For example, in one study these ranged from a low of 20% for secretarial help at $7,800 to 65% for middle management at $30,000.

Turnover costs include all the costs associated with the separation of an employee such as reduced efficiency during termination period, exit interview and paperwork costs, and severance pay and the costs associated with replacing the employee such as advertising, employment fees, recruitment, administrative and induction costs, medical examination, break-in costs, and reduced efficiency during break-in period. For technical and higher level personnel, relocation costs may also be included. At lower salary levels, direct out-of-the-pocket costs represent about 50% of the cost of replacement.

Absenteeism costs used in these estimates are simply the time lost multiplied by the regular pay-rate of the employee, under the assumption that all lost time is fully compensated. For lower level employees this assumption may not be a good one in as much as they may only get paid for hours worked. However, an alternative measure of the cost of absenteeism could include lost production and/or cost of replacement during absences. These would seem to

give estimates about the same as if not more than the method used. An American Management Association survey found absenteeism costs to average 1.16% of the direct annual wages, which in this case would be $92.80 for the $8,000 level as compared to the rate of $124.80 estimated by the method of this study.

The estimate of cost of child care consists of essentially two elements, the cost per child, and the number of children per employee. Evidence on the latter is rather sketchy, and so the experience rate of 1.25 children per employee with enrolled children from the PCA program was used. The cost per child figure could be approached in two ways, the experience levels (as reflected in Table 2), or the projected cost of a predetermined quality level. The latter was chosen as being the most relevant figure in deriving the estimates for Table 1. The assumption about the cost of child care is based on New Jersey estimates as to the cost of providing what is termed "quality" care by the Federal Interagency Day Care Requirements (FIDCR) which is a part of the legislation adding Title XX to the Social Security Act in 1975. These requirements stipulate that in order to receive federal funds a center's program must be developmentally orientated with an emphasis on the provision of services necessary to guarantee the healthy social, emotional, intellectual, and physical development of children. The various statutes regulating day care services stipulate or recommend:

1. Minimum and maximum number of enrollees
2. Size of class groups
3. Adult-child ratios
4. Physical structure of facilities

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[1]Oglivie, D. op cit.: 86.

5. Reports and records

6. Building code requirements

At present there is a $50 per week per child ceiling on Title XX funds for New Jersey.

In the benefit/cost analysis it was mentioned that the savings in turnover costs, and to some extent absenteeism costs, would be greater during times of tight labor market conditions, and lesser at other times. No attempt was made in this study to quantify this effect. However, it is interesting to note and speculate on the information given in Table 1A, which shows the relationship over time between the number of employee quits and the unemployment rate. Let the unemployment rate be taken as a measure of the tightness of the labor market, i.e. when the unemployment rate is low it is more difficult to find qualified employees. It is clear that during the tight labor markets (low unemployment rates) of 1959 and 1966 through 1969, and especially in the latter period, the turnover rate must have been high as the quit rate was relatively high. Conversely, during times of relatively easy labor markets in 1960 through 1963 and after 1969, the turnover rate must have been relatively low. Thus providing child care services for employees would have been more cost-effective in the years 1966 through 1969 than in the years since 1970. (see Table 1A)

It may not be just coincidence that several of the employer provided day care services were initiated in the late sixties and abandoned in the early seventies. It is possible to make a very rough estimate of the financial impact of this effect. The change in quit rate from high to low is 1.6

TABLE 1A

Labor Turnover versus Unemployment

	Quits Per 100 Employees	Unemployment Rate Civilian Labor Force
1959	1.6	5.5
1960	1.1	5.5
1961	1.4	6.7
1962	1.3	5.5
1963	1.3	5.7
1964	1.6	5.2
1965	2.2	4.5
1966	2.7	3.8
1967	2.4	3.8
1968	2.5	3.6
1969	2.5	3.5
1970	1.9	4.9
1971*	1.7	6.2

* Inner City Fund estimate based on January-June actual data

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics "Employment and Earnings," August 1971, Table D-3

percentage points. This figure is about 35% of the difference found in the Northside study. Using this ratio and assuming that since that study was done during times of relatively easy labor market conditions, the savings due to turnover would have been about 35% higher during the late sixties, or in the magnitude of $38.60 at the $11,000 salary level. Substituting this figure in Table 1 yields a benefit/cost ratio for that salary level of .72 as compared to the .57 shown. At that particular time it would have paid for the firm to subsidize up to 75% of an employee's child care cost.

Estimated need and costs for quality child care services in New Jersey:

The estimated figures for New Jersey in Table 1 were obtained by applying a ratio of females in the total U.S. labor force to females in the New Jersey labor force to national U.S. Bureau of Labor Statistics' figures. For 1977 statistics, the ratio was .035; and for 1976 statistics, the ratio was .036.

The numbers of children per family in Table 1 was based on Bureau of Labor Statistics figures in 1976 which shows an average of 2.05 children per husband/wife family and 2.03 children per female-headed family. Estimated numbers of children were obtained by multiplying a high of 2.1 per potential employee requiring day care services. It was assumed that New Jersey has a slightly higher average family size than the total U.S. population due to the higher number of minority families and their higher average number

of children.

Dollar outlays in Table 2 were based on Title XX ceilings of $50 per child per week for full-day care and $25 per child per week for part-day care in day care centers. The cost of preschool care by a non-relative in the home was calculated at $1.25 an hour. A non-relative caring for a preschool child in "other home" was based on compensation of $1.00 per hour.

For school-age children, costs were calculated at $1.25 an hour by a non-relative in the home and at $.50 an hour by a non-relative in "other home." These figures are in line with a study done by the Nevada Child Care Services Division of the Department of Human Resources entitled Dollars and Sense: Employer-Supported Child Care (1976).

Estimates for the geographical and racial distribution of day care need were based on 1975 experimental data prepared by the New Jersey Department of Labor and Industry, Division of Planning and Research, in August, 1978.

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